

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

RECEIVED
JUN 17 2003
TC 1700

Title of
Invention

High Deposition Rate Sputtering

Application Number: 10/065739
Confirmation Number: 7509
First Named Applicant: Roman Chistyakov
Attorney Docket Number: ZON-003
Search string: (4588490 or 5015493 or 5083061 or 5286360
or 5718813 or 5728278 or 5733418 or 5863392
or 6057244 or 6238537 or 6296742 or 6361667
or 6413382 or 6413383 or 6436251 or
20020114897).pn.


US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

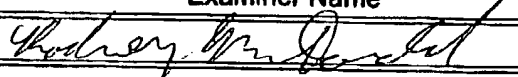
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
<input checked="" type="checkbox"/>	1	4588490	1986-05-13	Cuomo et al.		204	298
<input type="checkbox"/>	2	5015493	1991-05-14	Gruen		427	38
<input type="checkbox"/>	3	5083061	1992-01-21	Koshiishi et al.		315	111.81
<input type="checkbox"/>	4	5286360	1994-02-15	Szczyrbowski et al.		204	298.08
<input type="checkbox"/>	5	5718813	1998-02-17	Drummond et al.		204	192.12
<input type="checkbox"/>	6	5728278	1998-03-17	Okamura et al.		204	298.11
<input type="checkbox"/>	7	5733418	1998-03-31	Herscovitch et al.		204	192.11
<input type="checkbox"/>	8	5863392	1999-01-26	Drummond et al.		204	192.12
<input type="checkbox"/>	9	6057244	2000-05-02	Hausmann et al.		438	706
<input type="checkbox"/>	10	6238537	2001-05-29	Kahn et al.	B1	204	598.04
<input type="checkbox"/>	11	6296742	2001-10-02	Kouznetsov	B1	204	192.12
<input type="checkbox"/>	12	6361667	2002-03-26	Kobayashi et al.	B1	204	298.11
<input type="checkbox"/>	13	6413382	2002-07-02	Wang et al.	B1	204	192.12
<input type="checkbox"/>	14	6413383	2002-07-02	Chiang et al.	B1	204	192.13
<input checked="" type="checkbox"/>	15	6436251	2002-08-20	Gopalraja et al.	B2	204	298.12

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
	1	20020114897	2002-08-22	Sumiya et al.	A1	427	569

Signature

Examiner Name	TC
	Date
	2/11/04

RECEIVED
JUN 17 2003

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitution for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/065,739
				Filing Date	11/14/2002
				First Named Inventor	Chistyakov
				Art Unit	1753
				Examiner Name	McDonald
Sheet	1	of	3	Attorney Docket Number	ZON-003

[illegible][illegible]

Examiner Signature	<i>Lodrey McQuinn</i>	Date Considered	<i>2/11/04</i>
-----------------------	-----------------------	--------------------	----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw lines through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.



RECEIVED
JUL 09 2003
TC 1700

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 3

Complete if Known

Application Number	10/065,739
Filing Date	11/14/2002
First Named Inventor	Chistyakov
Group Art Unit	1753
Examiner Name	McDonald
Attorney Docket Number	ZON-003

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>[Signature]</i>	C1	BOOTH, ET AL., The Transition From Symmetric To Asymmetric Discharges In Pulsed 13.56 MHz Capacity Coupled Plasmas, J. Appl. Phys., July 15, 1997, Pgs. 552-560, Vol. 82 (2), American Institute of Physics.	
	C2	BUNSHAH, ET AL., Deposition Technologies For Films And Coatings, Materials Science Series, Pgs. 176-183, Noyes Publications, Park Ridge, New Jersey.	
	C3	DAUGHERTY, ET AL., Attachment-Dominated Electron-Beam-Ionized Discharges, Applied Science Letters, May 15, 1976, Vol. 28, No. 10, American Institute of Physics.	
	C4	GOTO, ET AL., Dual Excitation Reactive Ion Etcher for Low Energy Plasma Processing, J. Vac. Sci. Technol. A, Sept/Oct. 1992, Pgs. 3048-3054, Vol. 10, No. 5, American Vacuum Society.	
	C5	KOUZNETSOV, ET AL., A Novel Pulsed Magnetron Sputter Technique Utilizing Very High Target Power Densities, Surface & Coatings Technology, Pgs. 290-293, Elsevier Sciences S.A.	
	C6	LINDQUIST, ET AL., High Selectivity Plasma Etching Of Silicon Dioxide With A Dual Frequency 27/2-MHz Capacitive-RF-Discharge.	
	C7	MACAK, Reactive Sputter Deposition Process of Al2O3 and Characterization Of A Novel High Plasma Density Pulsed Magnetron Discharge, Linkoping Studies In Science And Technology, 1999, Pgs. 1-2, Sweden.	
<i>[Signature]</i>	C8	MACAK, ET AL., Ionized Sputter Deposition Using An Extremely High Plasma Density Pulsed Magnetron Discharge, J. Vac. Sci. Technol. A., July/August 2000, Pgs. 1533-37, Vol. 18, No. 4, American Vacuum Society.	

Examiner
Signature

Date

Considered

2/11/04

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

TC 1700

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

(use as many sheets as necessary)

Sheet	3	of	3
-------	---	----	---

Complete if Known

Application Number	10/065,739
Filing Date	11/14/2002
First Named Inventor	Chistyakov
Group Art Unit	1753
Examiner Name	McDonald
Attorney Docket Number	ZON-003

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

[illegible]

**Examiner
Signature**

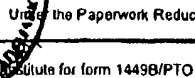
Date _____

Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	
-------	---	----	--

Complete if Known

Application Number	10/065,739
Filing Date	11/14/2002
First Named Inventor	Roman Chistyakov
Art Unit	1753
Examiner Name	Rodney Glenn McDonald
Attorney Docket Number	ZON-003

RECEIVED
AUG 19 2003
TC 1700
ald

NON PATENT LITERATURE DOCUMENTS

Examiner Signature	<i>Marky McDonald</i>	Date Considered	2/11/04
-----------------------	-----------------------	--------------------	---------

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

